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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,172	02/08/2002	Johannes Vaananen	2132-58	8628

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EXAMINER	
VU, KIEU D	

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

HL

Office Action Summary	Application No.	Applicant(s)	
	10/071,172	VAANANEN ET AL.	
	Examiner	Art Unit	
	Kieu D Vu	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 0802*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/04/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 8-15, 18-25, and 29-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Motosyuku et al ("Motosyuku", USP 5602566).

Regarding claims 1 and 22, Motosyuku teaches steps for browsing information on a display device of a hand-held device (see hand-held device in Fig. 3), wherein the method comprises a virtual display (display unit 106) being the display device of the hand-held device, a viewpoint from which the virtual display is viewed and a virtual data object (see Fig. 2) comprising information to be viewed on the virtual display ("John Smith", "Mary Smith," etc.), wherein the method comprises the steps of coupling the display device to a digital processor and mapping information content generated by the digital processor into the virtual data object suitable for conveying information to the user of the hand-held device (Fig. 1) (small-size information processor; col 2, lines 23-35, col 3, lines 11-25); displaying a portion of the virtual data object at a time on the display device, the virtual data object comprising characters, pictures, lines, links, video or pixels that can be conveniently displayed on the display device at a time (see Fig. 3) (display data on the display screen 203); wherein information is browsed on the display device essentially in a mirror-like way (display data on the display screen 203), the

method further comprising the step of moving the portion of the virtual data object displayed on the display device in the same direction as the hand-held device is tilted (col 3, lines 44-56), whereby a certain orientation of the hand-held device always displays the same portion of the virtual data object on the display device (col 4, lines 36-53).

Regarding claims 2 and 23, Motosyuku teaches setting a predefined xy-plane as a xy-plane (Fig. 2); determining a relation between the rotation degree around the x-axis and the y-axis and the amount of the displacement of the portion on the virtual data object displayed on the display device at a time (tilt angle; col 4, lines 36-38); displacing the position of the displayed portion of the virtual data object to the right when the hand-held device is rotated essentially towards the positive rotation direction around the y-axis; (col 3, lines 44-56) displacing the position of the displayed portion of the virtual data object to the left when the hand-held device is rotated essentially towards the negative rotation direction around the y-axis (col 3, lines 44-56); displacing the position of the displayed portion of the virtual data object upwards when the hand-held device is rotated essentially towards the positive rotation direction around the x-axis (col 4, lines 36-53); displacing the position of the displayed portion of the virtual data object downwards when the hand-held device is rotated essentially towards the negative rotation direction around the x-axis; and displaying the movement of the portion of the virtual data object on the display device of the hand-held device according to the set relation (col 4, lines 36-53).

Regarding claims 3 and 24, Motosyuku teaches changing the relation between the rotation degree around the x-axis and/or the y-axis and the amount of the displacement of the portion on the virtual data object in proportion to the distance between the viewpoint and the display device (col 5, lines 18-43).

Regarding claims 4 and 25, Motosyuku teaches the movement of the portion of the virtual data object displayed on the display device is proportional to the change amount and/or rate of the rotational movement around the x-axis and/or y-axis (col 5, lines 38-43).

Regarding claims 8 and 29, Motosyuku teaches the information displayed on the display device essentially depends on the location and orientation of the virtual display, the viewpoint and the virtual data object (col 4, lines 34-53).

Regarding claims 9 and 30, Motosyuku teaches setting the display device surface level as an xy-plane; determining a relation between the x-axial and/or y-axial movement of the hand-held device and the amount of the displacement of the portion of the virtual data object displayed on the display device at a time; and moving the portion of the virtual data object displayed on the display device in the same direction as the hand-held device is moved in the xy-plane according to the relation information (col 7, lines 8-31).

Regarding claims 10 and 31, Motosyuku teaches filtering the x-axial, y-axial and/or tilting movements before displaying the movements on the display device (col 4, lines 36-52).

Regarding claims 11 and 32, Motosyuku teaches changing the relation between the rotation degree around the x-axis and y-axis and the amount of the displacement of the portion of the virtual data object displayed on the display device at a time (col 4, lines 36-52).

Regarding claims 12 and 33, Motosyuku teaches keeping the orientation of the information displayed on the display device unchanged when rotating the hand-held device around the axis being essentially perpendicular to the surface level of the hand-held device (col 6, lines 33-52).

Regarding claim 13, Motosyuku teaches hand-held device for browsing information, wherein the hand-held device comprises a virtual display being the display device of the hand-held device (Fig. 1), the hand-held device comprising:
a digital processor (processing unit); memory coupled to the digital processor, the memory comprising a virtual data object suitable for conveying information to the user of the hand-held device (col 3, lines 11-25); a display device coupled to the digital processor means for moving the portion of the virtual data object displayed on the display device in the same direction as the hand-held device is tilted, whereby a certain orientation of the hand-held device always displays the same portion of the virtual data object on the display device (col 4, lines 36-52).

Regarding claim 14, Motosyuku teaches means for setting an xy-plane as a default xy-plane (Fig. 2); relation information (60) based on the rotation degree around the x-axis and y-axis and the amount of the displacement of the portion of the virtual display space displayed on the display device at a time (col 4, lines 36-52);

means for determining the rotation amount around the x-axis and/or y-axis (Fig. 14) and means for changing the location of the portion of the virtual data object displayed on the display device based on the rotational amount around the x-axis and/or y-axis and the relation information (REL) (col 3, lines 44-56)

Regarding claim 15, Motosyuku teaches changing the relation information (col 4, lines 36-52).

Regarding claim 18, Motosyuku teaches setting the display device surface level as an xy-plane; relation information between the x-axial and/or y-axial movement of the

hand-held device and the amount of the displacement of the portion of the virtual data object displayed on the display device at a time; means for determining the amount of displacement in the xy-plane; and means for moving the portion of the virtual data object displayed on the display device in the same direction as the hand-held device is moved in the xy-plane according to the relation information (col 7, lines 8-31).

Regarding claim 19, Motosyuku teaches filtering the x-axial, y-axial and/or tilting movements before displaying the movements on the display device (col 4, lines 36-52).

Regarding claim 20, Motosyuku teaches changing the relation (60) between the rotation degree around the x-axis and y-axis and the amount of the displacement of the portion of the virtual data object displayed on the display device at a time (col 4, lines 36-52).

Regarding claim 21, Motosyuku changing the relation (60) between the x-axial and/or y-axial movement of the hand-held device and the amount of the displacement of

the portion of the virtual data object displayed on the display device at a time (col 5, lines 18-45)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-7, 16-17, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motosyuku and Lands (USP 6201554)

Regarding claims 5, 16, and 26, Motosyuku does not teach setting the display device into a zoom mode; determining the distance between the viewpoint and the display device; and zooming in or out the displayed information based on the determined distance information. However, such feature is known in the art as taught by Lands. Lands teaches a portable display device which comprises setting the display device into a zoom mode; determining the distance between the viewpoint and the display device; and zooming in or out the displayed information based on the determined distance information (col 2, lines 51-65). It would have been obvious for one of ordinary skill in the art to modify Motosyuku teaching to include zooming taught by Lands with the motivation being enable user to enlarge or reduce the size of information displayed as necessary.

Regarding claims 6, 17 and 27, Motosyuku does not teach setting the display device into a zoom mode; and zooming in or out the displayed information when rotating

the hand-held device around the axis being essentially perpendicular to the predefined xy-plane. However, such feature is known in the art as taught by Lands. Lands teaches a portable display device which comprises setting the display device into a zoom mode; determining the distance between the viewpoint and the display device; and zooming in or out the displayed information when rotating the hand-held device around the axis being essentially perpendicular to the predefined xy-plane (col 7, lines 21-39). It would have been obvious for one of ordinary skill in the art to modify Motosyuku teaching to include zooming taught by Lands with the motivation being enable user to enlarge or reduce the size of information displayed as necessary.

Regarding claims 7 and 28, Motosyuku does not teach setting the display device into a zoom mode; and zooming in or out the displayed information when the hand-held device is tilted. However, such feature is known in the art as taught by Lands. Lands teaches a portable display device which comprises setting the display device into a zoom mode; and zooming in or out the displayed information when the hand-held device is tilted (col 2, lines 51-65). It would have been obvious for one of ordinary skill in the art to modify Motosyuku teaching to include zooming taught by Lands with the motivation being enable user to enlarge or reduce the size of information displayed as necessary.

5. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach navigation and magnification in hand-held devices in response to orientation change which relates to the claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kieu D. Vu. The examiner can normally be reached on Mon - Thu from 7:00AM to 3:00PM at 571-272-4057.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached at 571-272-4048.

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

703-872-9306

and / or:

571-273-4057 (use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper / amendment be faxed directly to them on occasions).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kieu D. Vu